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10/822,849	04/13/2004	Takeshi Yoshioka	119436	3204
25944 7590 12/19/2007 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER HIRL, JOSEPH P	
			ART UNIT	PAPER NUMBER
			2129	
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

Application No.

10/822,849

Applicant(s)

YOSHIOKA ET AL.

Examiner

Joseph P. Hirl

Art Unit

2129

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 5-14, 16-20 and 22-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-14, 16-20 and 22-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1. This Office Action is in response to an AMENDMENT entered November 8, 2007 for the patent application 10/822,849 filed on April 13, 2004.
2. All prior office actions are incorporated into this Final Office Action by reference.

### ***Status of Claims***

3. Claims 5-14, 16-20 and 22-26 are pending in this application.

### ***Claim Rejections - 35 USC § 101***

4. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claims 22-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The subject claims limit to an "experienced-knowledge information processing method" that is not further defined in the specification and which in the general sense can be interpreted to be a computer program per se which is non statutory.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 5-14, 16-20 and 22-26 are rejected under 35 U.S.C. 102(b) as being anticipated by BrainMaker (California scientific Software, Neural Network Simulation Software User's Guide and Reference, referred to as **BrainMaker**).

Examiner's Note (EN): ¶ 13. applies. Claims 5-14 limit to an apparatus. Claims 16-20, 22-26 limit to a method or process. Notwithstanding such limitations, generally there is an input, analysis/calculation and an output. The input limits to experience knowledge which is generally training data. An individual is identified but since the invention relates to an apparatus or computer methodology, such individual is generally interpreted to be a node in the system of limitations. A limitation related to a display will be anticipated by a generic computer system. Integration of such limitations can be mapped to a neural network such as BrainMaker where training data is used to train the neural network that is then used to predict or classify a given input based on the operation of the nodes or individuals. Claims are grouped related to similarity and anticipation is noted with exceptions (EN).

**Claims 5, 7, 9**

BrainMaker anticipates a input unit for inputting information about a period

of an experience of acquiring knowledge, information about knowledge acquired from the experience, and information about an individual possessing the knowledge (**BrainMaker**, p2-13:20-26; EN: ¶ 13. applies; such is training data); an analysis unit for analyzing the inputted information to determine a propagation state of the knowledge among a plurality of individuals (**BrainMaker**, p1-7, Fig.; p1-10; p1-7:7-15; EN: individuals are synonymous with nodes; analysis unit is the hidden layer of the neural network); and an output unit for displaying and outputting the analyzed propagation state of the knowledge (**BrainMaker**, p4-22, p4-23; p4-23, Fig.; EN: the error related to number of runs is equivalent to "outputting the analyzed propagation state of the knowledge"; the activity to which the knowledge has been applied relates to the characteristic of the training data set; job training categories is merely a descriptive title).

#### **Claim 6**

BrainMaker anticipates the analysis unit further calculates a propagation velocity of the knowledge among the plurality of individuals based on the inputted information about a period of an experience (**BrainMaker**, p4-22, p4-23; p4-23, Fig.; EN: the error related to number of runs is equivalent to "outputting the analyzed propagation state of the knowledge"; graph indicates rate of change by the slope).

#### **Claims 8, 10, 11, 12, 13, 14, 22, 23, 24, 25, 26**

BrainMaker anticipates a an input unit for inputting information about a personal experience gained from a past activity, information about knowledge acquired from the experience, and information about application of the knowledge (**BrainMaker**, p2-13:20-

26; EN: ¶ 13. applies; such is training data); an analysis unit for analyzing the inputted information to identify a knowledge creation process which converts an experience into knowledge and a knowledge creation process which applies knowledge to a new activity (**BrainMaker**, p1-7, Fig.; p1-10; p1-7:7-15; p2-5:4-5); and a calculating unit for calculating a total number of pieces of knowledge acquired or applied in accordance with each knowledge creation process (**BrainMaker**, p4-22, p4-23; p4-23, Fig.; EN: such is a histogram); and an output unit for displaying and outputting the calculated values (**BrainMaker**, p4-22, p4-23; p4-23, Fig.; EN: the error related to number of runs is equivalent to "outputting the analyzed propagation state of the knowledge"; the activity to which the knowledge has been applied relates to the characteristic of the training data set; the Fig. On page 1-23 is representative of a two dimensional table; "job category" is merely a description of data).

### **Claims 16, 17, 18, 19**

BrainMaker anticipates a computer readable storage medium bearing instructions for making a computer execute a knowledge management process based on personal experiences, the instructions causing the computer to execute the knowledge management process for reuse of knowledge which converts an experience gained from a past activity into knowledge by a knowledge creation process and applies the knowledge to a new activity based on inputted information including information about a personal experience gained from a past activity, information about knowledge acquired from the experience and information about application of the knowledge, the knowledge management process including (**BrainMaker**, p1-13; p2-5:1-13): identifying

an activity where the knowledge has been acquired from the experience, and an activity where the knowledge has been applied (**BrainMaker**, p2-5:1-13); calculating a total number of pieces of knowledge acquired or applied in accordance with each activity (**BrainMaker**, p4-23); and outputting the calculated values (**BrainMaker**, p4-22, p4-23; p4-23, Fig.; EN: the error related to number of runs is equivalent to "outputting the calculated values"; job category is merely a descriptive title of data).

#### **Claim 20**

BrainMaker anticipates calculating a propagation velocity based on the propagation state of the knowledge among the individuals (**BrainMaker**, p4-22, p4-23; EN: propagation velocity is the rate of change of the error); and displaying or outputting the calculated propagation velocity (**BrainMaker**, p4-22, p4-23 (**BrainMaker**, p4-22, p4-23; EN: propagation velocity is the rate of change of the error; the graph is the output).

#### **Response to Arguments**

8. Rejection of claims 16-20 under 35 USC § 101 are withdrawn. Rejection of 22-26 under 35 USC § 101 stand for the reasons cited in ¶ 4. above.

9. Applicant's arguments filed on November 8, 2007 related to Claims 5-14, 16-20 and 22-26 have been fully considered but are not persuasive.

In reference to Applicant's argument:

The rejection of at least claims 22-26 is in error as those claims are directed to methods, which cannot reasonably be considered as computer programs per se. This argument was discussed during the October 18, 2007 personal interview with the Examiner. The Examiner agreed that the rejection of at least claims 22-26 appeared to be incorrect. Applicants appreciate this indication by the Examiner.

Examiner's response:

While the Examiner's policy is to frankly discuss features of the claim, it is not the Examiner's policy to accept any arguments in an interview since the examination process is a written one and it is only at the time of examination of the applicant's submission that a proper judgment can be made on the merits of the instant submission. Hence, the Interview Summary of October 18, 2007 was so noted in item h). The Examiner as a matter of policy does not agree to anything at an interview. Concerning the subject matter, indeed programming represents methodology and hence the rejection of claims 22-26 under 35 USC § 101 stand.

In reference to Applicant's argument:

The Examiner asserts, in paragraph 7, that the nodes in BrainMaker are considered to correspond to the claimed "individuals" in the pending claims. However, this assertion overstates what the nodes in BrainMaker can reasonably be considered to teach with respect to the specific features of the pending claims. For example, claim 5 recites, among other features, an input unit for inputting information about a period of an experience of acquiring knowledge, information about knowledge acquired from the experience, and information about an individual possessing the knowledge. BrainMaker does not teach such a combination of features, or the features in which these values are subjected to further analysis and presentation, based on the relied-upon disclosure of an input node.

Examiner's response:

The Office Action of July 10, 2007 was done using 35 USC § 102(b). MPEP 2131.05

cites the following:

"Arguments that the alleged anticipatory prior art is 'nonanalogous art' or 'teaches away from the invention' or is not recognized as solving the problem solved by the claimed invention, [are] not 'germaine' to a rejection under section 102." *Twin Disc, Inc. v. United States*, 231 USPQ 417, 424, (Cl. Ct. 1986) (quoting in re Self, 671 F.2d 1344, 213 USPQ 1, 7 (CCPA 1982)).



The Examiner is particularly evaluating the structural mechanism that the applicant has proposed and referring to something therein as an "individual" falls into the category of "written description." Under the circumstances of the claim 5, there is nothing special about "individual." The various features are merely written description of the input data ... i.e. d1, d2, d3, ... each piece of data being different from the other pieces of data ... call them whatever you wish. Brainmaker teaches training data which is sufficient.

**In reference to Applicant's argument:**

The broad interpretation that a neural network per se somehow teaches all of the features of the pending claims does not properly address the specifically recited features regarding types of input information and analyzing processes of the present subject matter. As discussed further below, it is unreasonable to consider the processing of any conventional data by BrainMaker to teach these features. This is particularly true with respect to, for example, method claims 22-26 that include processing methods for managing knowledge based on personal experiences for reuse of knowledge which converts an experience gained from a past activity into knowledge by a knowledge creating process and applied the knowledge to a new activity.

In reviewing the anticipation standard, the Federal Circuit has stated "[t]o anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375 (Fed. Cir. 2001), cert. denied, 122 S. Ct. 1436 (2002) See also *Sandisk Corp. v. LexarMedia, Inc.*, 91 F. Supp. 2d 1327, 1336 (N.D. Calif. 2000) (stating that "[u]nless all the elements are found in a single piece of prior art in exactly the same situation and united the same way to perform the identical function, there is no anticipation.") and *Aero Industries Inc. v. John Donovan Enterprises-Florida Inc.*, 53 USPQ2d 1547, 1555 (S.D. Ind. 1999) (stating that "[n]ot only must a prior patent or publication contain all of the claimed elements of the patent claim being challenged, but they 'must be arranged as in the patented device' "). This standard for anticipation is also set forth in MPEP §2131, which states that "the identical invention must be shown in as much detail as is contained in the ... claim." The application of BrainMaker to the features of the pending claims fails to meet this standard at least because BrainMaker does not disclose all of the features of the claims, in as much detail as the claims, and arranged as in the claims, as indicated above, and discussed further below.

**Examiner's response:**

¶ 13. applies. The Office Action of July 10, 2007, page 3, lines 10-20 set the rationale for mapping the teachings of Brainmaker to the Applicant's claims. The cited portion of the preamble of claim 22 is not considered a limitation. Applicant is directed

to MPEP 2131.05 concerning the application of the Brainmaker art to the Applicant's invention.

**In reference to Applicant's argument:**

Regarding claims 5, 6, 19, 20, 25 and 26, the Office Action asserts that BrainMaker discloses an analysis unit for analyzing the inputted information to determine a propagation state and propagation velocity of knowledge among a plurality of individuals. The Office Action alleges that (1) the hidden layer of BrainMaker corresponds to the claimed analysis unit, (2) the error related to the number of runs corresponds to outputting an analyzed propagation state, and (3) the graph "indicating a rate of change by the slope" corresponds to the propagation velocity. However, the presentation of "bad values" as outputs in BrainMaker does not correspond to a propagation state of knowledge among a plurality of individuals, or propagation velocity of the knowledge among the plurality of individuals, as these terms would be understood by one of ordinary skill in the art, or as used in the context of Applicants' specification and the pending claims.

For example, because the "training data" of BrainMaker does not correspond to the variously recited input information about knowledge recited in the pending claims, erroneous outputs do not reflect or correspond to the propagation of any "knowledge" amongst any of the input nodes of BrainMaker. In this regard, it appears that the Office Action may be relying on an analysis of output information in BrainMaker as corresponding to the analysis of input information in the pending claims. Such an analysis would not satisfy the requirements of the above-described standard for anticipation.

**Examiner's response:**

¶ 13. applies. Applicant is reminded that the Examiner has an obligation to interpret the claims in the broadest reasonable manner. Hence, interpretation and the identified mapping are indeed proper. The knowledge that is propagated between nodes in Brainmaker is simply that information considered appropriate by a trained node to support the following node. The applicant's claims do not require any further teachings in anticipation.

**In reference to Applicant's argument:**

These arguments were discussed during the October 18, 2007 personal interview with the Examiner. The Examiner requested that Applicants point out specific support for the features of propagation state and propagation velocity from Applicants' disclosure in a formal response. In response to the Examiner's request, Applicants direct the Examiner to, for example, paragraphs [0042], and [0087]-[0093], and Figs. 19 and 20, of Applicants disclosure, as filed.

Examiner's response:

¶ 13. applies. While it is of interest to know the specific areas of the specification that the applicant is considering, the applicant is reminded that: "Limitations appearing in the specification but not recited in the claim are not read into the claim."

In reference to Applicant's argument:

Claims 7-9, 16-18 and 22-24 variously recite analyzing or inputting information to identify (1) an activity corresponding to an experience from which knowledge has been acquired and an activity to which the knowledge has been applied; (2) a knowledge creation process which converts an experience into knowledge and a knowledge creation process which applies knowledge to a new activity; or (3) a job category where the experience has been gained, and information about a job category to which the knowledge has been applied. As indicated above, the Office Action appears to be relying on the output of BrainMaker to allegedly correspond to the claimed inputs and analysis of inputs. This analysis fails to meet the standard for anticipation under 37 U.S.C. § 102, and fails to meaningfully address the variously recited features arranged as in the claims.

These arguments were discussed during the October 18, 2007 personal interview with the Examiner. The Examiner requested that Applicants point out specific support for the features of an activity corresponding to an experience from which knowledge has been acquired and an activity to which the knowledge has been applied; a knowledge creation process which converts an experience into knowledge and a knowledge creation process which applies knowledge to a new activity; and a job category where the experience has been gained, and information about a job category to which the knowledge has been applied, from Applicants' disclosure in a formal response. In response to the Examiner's request, Applicants direct the Examiner to, for example, paragraphs [0041]-[0042], [0046], [0053] and [0055], and Figs. 6 and 7, of Applicants disclosure, as filed.

Examiner's response:

¶ 13. applies. MPEP 2131.05 cited above applies. Applicant's merely reciting of limitations indicating that the prior art of Brainmaker does not apply without the detailed specifics as to why such art does not apply is not a proper response to the subject rejections and indeed does not allow the Examiner to respond in a detailed manner.

Examiner acknowledges the referenced sections of the application.

In reference to Applicant's argument:

As indicated above, and in light of the ordinary and customary meaning of the claim terms as they would be understood by one of ordinary skill in the art considering the claims and specification as a whole, BrainMaker does not teach a corresponding analyzing, or inputting, information to identify an activity corresponding to an experience from which knowledge has been acquired and an activity to which the knowledge has been applied; a knowledge creation process which converts an experience into knowledge and a knowledge creation process which applies knowledge to a new activity; and a job category where the experience has been gained, and information about a job category to which the knowledge has been applied, as variously recited in claims 7-9, 16-18 and 22-24.

Examiner's response:

¶ 13. applies. MPEP 2131.05 cited above applies. Applicant's merely reciting of limitations indicating that the prior art of Brainmaker does not apply without the detailed specifics as to why such art does not apply in the specific manner cited by the Examiner in the First Office Action dated July 10, 2007 is not a proper response to the subject rejections and indeed does not allow the Examiner to respond in a detailed manner.

In reference to Applicant's argument:

Claims 10-14 recite, among other features, outputting or displaying various combinations of activities, knowledge creation processes, job categories and periods in two- dimension tables. The Office Action apparently relies on the Figure depicted on page 4-23 of BrainMaker as teaching such features. However, as argued above with respect to claims 7-9, 16-18 and 22-24, any representation of error rates in BrainMaker does not correspond to the claimed presentation of calculations based on specific corresponding activities identified through analysis of input data, as variously recited in claims 10-14.

Examiner's response:

¶ 13. applies. MPEP 2131.05 cited above applies. In the Office Action dated July 10, 2007, page 4, lines 19-22, and page 5, lines 1-12 citing prior art to that of the referenced claims, the Examiner was prior art specific to the elements of such claims. Applicant must also understand that "The Examiner has full latitude to interpret each

claim in the broadest reasonable sense.” Further, that under the structure of Brainmaker, Applicant’s invention reads on the structure of Brainmaker as mapped in the First Office Action, differing only in written description of the features.

### ***Examination Considerations***

10. The claims and only the claims form the metes and bounds of the invention.

“Office personnel are to give the claims their broadest reasonable interpretation in light of the supporting disclosure. *In re Morris*, 127 F.3d 1048, 1054-55, 44USPQ2d 1023, 1027-28 (Fed. Cir. 1997). Limitations appearing in the specification but not recited in the claim are not read into the claim. *In re Prater*, 415 F.2d, 1393, 1404-05, 162 USPQ 541, 550-551 (CCPA 1969)” (MPEP p 2100-8, c 2, I 45-48; p 2100-9, c 1, I 1-4). The Examiner has full latitude to interpret each claim in the broadest reasonable sense. Examiner will reference prior art using terminology familiar to one of ordinary skill in the art. Such an approach is broad in concept and can be either explicit or implicit in meaning.

11. Examiner’s Notes are provided with the cited references to prior art to assist the applicant to better understand the nature of the prior art, application of such prior art and, as appropriate, to further indicate other prior art that maybe applied in other office actions. Such comments are entirely consistent with the intent and spirit of compact prosecution. However, and unless otherwise stated, the Examiner’s Notes are not prior art but a link to prior art that one of ordinary skill in the art would find inherently appropriate.

12. Unless otherwise annotated, Examiner's statements are to be interpreted in reference to that of one of ordinary skill in the art. Statements made in reference to the condition of the disclosure constitute, on the face of it, the basis and such would be obvious to one of ordinary skill in the art, establishing thereby an inherent prima facie statement.

13. Examiner's Opinion: ¶¶ 9. – 11. apply. The Examiner has full latitude to interpret each claim in the broadest reasonable sense.

### ***Conclusion***

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

15. Claims 5-14, 16-20 and 22-26 are rejected.

***Correspondence Information***

16. Any inquiry concerning this information or related to the subject disclosure should be directed to the Primary Examiner, Joseph P. Hirl, whose telephone number is (571) 272-3685. The Examiner can be reached on Monday – Thursday from 5:30 a.m. to 4:00 p.m.

As detailed in MPEP 502.03, communications via Internet e-mail are at the discretion of the applicant. Without a written authorization by applicant recorded in the applicant's file, the USPTO will not respond via e-mail to any Internet correspondence which contains information subject to the confidentiality requirement as set forth in 35 U.S.C. 122. A paper copy of such correspondence will be placed in the appropriate patent application. The following is an example authorization which may be used by the applicant:

Notwithstanding the lack of security with Internet Communications, I hereby authorize the USPTO to communicate with me concerning any subject matter related to the instant application by e-mail. I understand that a copy of such communications related to formal submissions will be made of record in the applications file.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, David R. Vincent can be reached at (571) 272-3080.

Any response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Application/Control Number:  
10/822,849  
Art Unit: 2129

Page 15

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Joseph P. Hirl  
Primary Examiner  
December 13, 2007